Alexander J. Habegger

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EDUCATION

Miami University	3.92 GPA
M.S. in Computer Science	*Expected August 2024*
Miami University	3.60 GPA
B.S. in Computer Science, Minor in Bioinformatics & Mathematics, Honors College	*Expected May 2024*
Wadsworth High School	4.49 GPA
High School Diploma, National Honors Society, Salutatorian, Swim Team, 35 ACT	*May 2020*

EXPERIENCE

Coding Contractor — Spring 2024 - Present
The INS Companies — *Remote Position*
- Automated several tasks by integrating many Microsoft tools into company workflow
- Used PowerAutomate and ExcelScript to create to assist in insurance regulation

Tech Lead Intern — Summer 2022 & 2023
Mobile Health Consumer — *Remote Position*
- Used Python to implement and manipulate data structures to meet client specifications
- Collaborated within a team structure following Agile development methodologies using the Jira program
- Participated in stand-and-deliver meetings and coordinated with multiple teams using Slack
- Completed a self-directed project to update the website to become Section 508 compliant

Bartender & Dockboy — Summer 2020 & 2021
Pick's at Portage Lakes — *Akron, OH*
- Addressed customer requests and complaints efficiently and built rapport with patrons
- Served as a bartender, leading a two-person bar by maintaining inventory levels and delivering top-notch service
- Managed the docks and boat traffic to ensure smooth docking operations and maintain safety protocols

AWARDS & POSITIONS

Eagle Scout Rank	*Boy Scout Troop 402*	Awarded April 2018
Service Member	*Alpha Phi Omega Service Fraternity*	Sept. 2022 – Present
Competitive Member	*Miami University Fencing Club*	Feb. 2021 – Present

PROJECTS

Master's Thesis | *Efficient Quantum Computing Algorithms to Protein Folding*
- Utilized quantum computing to offer solutions to the longstanding NP-Hard protein folding problem
- Encoded the complex interactions between amino acids into a Hamiltonian function
- Used quantum algorithms (VQE & QBM) to predict the optimal structure of proteins by minimizing energy levels
- Implemented genetic, error-correction, and thermometer-based techniques to ensure accurate and efficient solutions

Senior Design Capstone | *GamerDawgs Game Settings Website*
- Developed a web application using TypeScript and HTML/CSS within the Angular framework
- Collaborated with a six-person team using Agile methodologies to enhance teamwork and efficiency
- Utilized responsible version control to facilitate seamless collaboration among team members

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript, TypeScript, HTML/CSS, R, Prolog, VBA
Frameworks: Django, Angular, WordPress, Bootstrap
Developer Tools: Git, AWS, Visual Studio, PyCharm, Eclipse, phpMyAdmin, Bach/Powershell, Jira
Libraries: Pandas, NumPy, Matplotlib, Qiskit, PyTorch, BLAST, PythonBio, jQuery
Coursework: Multivariable Calculus, Machine Learning, Quantum Computing, Database Systems
Other Skills: Excel, Agile, Model-Driven Design, Biological Knowledge, UML, Data Structures